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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,824	09/30/2003	Balu Balakrishnan	005510.P077	6654

7590

11/01/2005

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EXAMINER

WELLS, KENNETH B

ART UNIT PAPER NUMBER

2816

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/675,824	<b>Applicant(s)</b> BALAKRISHNAN, BALU	
	<b>Examiner</b> Kenneth B. Wells	<b>Art Unit</b> 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-73 is/are pending in the application.
- 4a) Of the above claim(s) 13-16, 18, 23, 28, 30-47, 51, 53, 57 and 69-73 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 3-12, 17 and 19-22 is/are allowed.
- 6) ☒ Claim(s) 48-50, 54-56 and 58-68 is/are rejected.
- 7) ☒ Claim(s) 52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2816

1. Applicant's amendment filed on 9/15/05 has been received and entered in the case. In view of the arguments and amendments to the claims, new grounds of rejection are now set forth.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 48, 60 and 61 are objected to because of the following informalities: In claim 48, line 9, the word --to-- should be inserted after the word "response". In claims 60 and 61, a period is needed at the end of these claims.

Appropriate correction is required.

4. Claims 48-50, 54-56 and 58-65 are rejected under 35 U.S.C. 102(b) as being anticipated by any one of Limmer et al, Liu et al, Trevino et al, and Randazzo.

In Limmer et al, note Fig. 4 where the recited high and low side switches read on the transistors receiving the outputs from block S, the recited high and low side capacitors are C1 and C2, respectively, and the load is

Art Unit: 2816

element RL. In Liu et al, note Fig. 10, where the high and low side switches are Q2 and Q1, respectively, the high and low side capacitors are C2 and C1, respectively, and the load is block Llk. In Trevino et al, note Fig. 2, where the high and low side switches are transistors S1 and S2, respectively, the high and low side capacitors are elements 165 and 170, respectively, and the load is block 115. In Randazzo note Fig. 1A, where the high and low side switches are elements 7 and 8, respectively, the high and low side capacitors are elements 5 and 6, respectively, and the load is circuit block 10. The functional recitations in the above-noted claims, i.e., the high side switch being turned on as a function of the voltage across the high side switch (after the low side switch has turned off) is deemed to be inherent in the operation of the four above-noted references.

5. Claims 66-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Limmer et al, Liu et al, Trevino et al, and Randazzo.

The recitation of the different environments where the bridge circuit is used does not define patentably over the above-noted references because those having ordinary skill

Art Unit: 2816

in the art will easily recognize this obvious intended uses of the circuits of the above-noted references (the motivation being to obtain the benefits/advantages taught by each of the references). Moreover, forming the switches using field-effect transistors also would have been obvious to those having ordinary skill in the art, i.e., such is a well-known way of forming high and low side switches, of which fact official notice is taken by the examiner.

6. Claims 1, 3-12, 17, 19-22, 24-27 and 29 are allowed. if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 52 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. In view of the above-noted new grounds of rejection, this office action is non-final.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to

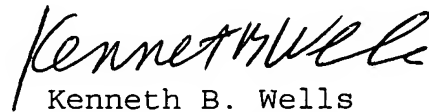
Art Unit: 2816

Kenneth B. Wells whose telephone number is (571)272-1757.

The examiner can normally be reached on Monday through Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan, can be reached at (571)272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Kenneth B. Wells  
Primary Examiner  
Art Unit 2816

October 28, 2005